

Basic Information

Product Name	Anti-NLRP3 Antibody
Gene Name	NLRP3
Source	Rabbit
Isotype	IgG
Species Reactivity	human
Tested Application	WB
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.
Immunogen	E.coli-derived human CIAS1 recombinant protein (Position: D21-K194). Human CIAS1 shares 77% amino acid (aa) sequence identity with mouse CIAS1.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	118KD
Dilution Ratios	Western blot(WB):1:500-2000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

NLRP3(NLR FAMILY, PYRIN DOMAIN-CONTAINING 3),also known as CIAS1, CRYOPYRIN, NALP3 or PYPAF1, is a protein that in humans is encoded by the NLRP3 gene. It is mapped to 1q44. The encoded protein may play a role in the regulation of inflammation and apoptosis. Mutation of the NALP3 nucleotide-binding domain reduced ATP binding, CASP1 activation, IL1B production, cell death, macromolecular complex formation, self-association, and association with ASC. Consistent with an essential role for Nlrp3 inflammasomes in antifungal immunity, it has been showed that Nlrp3-deficient mice are hypersusceptible to C. albicans infection. Activation of the NLRP3 inflammasome in response to virus or to RNA was dependent upon lysosomal maturation and reactive oxygen species production in human cells. The NLRP3 inflammasome senses obesity-associated danger signals and contributes to obesity-induced inflammation and insulin resistance.

Selected Validation Data



Figure 1. Western blot analysis of CIAS1 using anti-CIAS1 antibody (PB0121). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. lane 1: HELA whole cell lysate, lane 2: MCF-7 whole cell lysate, lane 3: JURKAT whole cell lysate, lane 4: HEPG2 whole cell lysate. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CIAS1 antigen affinity purified polyclonal antibody (Catalog # PB0121) at 0.5 μ g/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CIAS1 at approximately 118KD. The expected band size for CIAS1 is at 118KD.